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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,598	03/25/2004	Johannes Jacobus Matheus Baselmans	081468-0308899	5600

909 7590 10/03/2006

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EXAMINER
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AKANBI, ISIAKA O

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/808,598

Applicant(s)

BASELMANS ET AL.

Examiner

Isiaka O. Akanbi

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 16 and 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-15 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 25 July 2006 has been entered.

### ***Amendment***

The amendment file 25 July 2006 has been entered into this application.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 6 and 7 are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter.

Claim 1 recites the limitation "wherein the measuring is performed for a plurality of images of the second test pattern obtained at planes displaced along an optical axis relative to each other". Merely performing measurement for a plurality of images of the second test pattern obtained at planes displaced along an optical axis relative to each other would not appear to be sufficient to constitute a tangible result, since the outcome of the performing measurement step has not been used in a disclosed practical application nor made available in such a manner that's its usefulness in a disclosed practical application can be realized. See OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility".

Claim 6 recites the limitation "wherein coordinates of a filter used for the filtering are included as Variable parameters in calculations for said determining". Merely coordination of a filter used for the filtering are included as Variable parameters in calculations for said determining would not appear to be sufficient to constitute a tangible result, since the outcome of the coordination step has not been used in a disclosed practical application nor made available in such a manner that's it's usefulness in a disclosed practical application can be realized.

Claim 7 recites the limitation "wherein spherical aberration introduced by a filter used for the filtering is included as a variable parameter in determining the aberration information". Merely spherical aberration introduction by a filter used for the filtering is included as a variable parameter in determining the aberration information would not appear to be sufficient to constitute a tangible result, since the outcome of the spherical aberration introduction step has not been used in a disclosed practical application nor made available in such a manner that's it's usefulness in a disclosed practical application can be realized.

### ***Allowable Subject Matter***

Claims 1, 6 and 7 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 101, set forth in this Office action

As to claims 1 6 and 7, the prior art of record, taken alone or in combination, fails to disclose or render obvious wherein projecting the second test pattern comprises filtering to select particular radiation paths through the projection system of the second test pattern, in combination with the rest of the limitations of the claim. Claims 2-5, 8, 11-15 and 17 are allowable by virtue of their dependency.

Claim 9 is allowable

As to claim 9, the prior art of record, taken alone or in combination, fails to disclose or render obvious projecting a second test pattern, the projecting of the second test pattern comprising filtering to select particular radiation paths through the projection system of the

second test pattern, in combination with the rest of the limitations of the claim. Claims 16 and 18-20 are allowable by virtue of their dependency.

### ***Response to Arguments***

Applicant's arguments/remarks, see pages 6-10, filed 25 July 2006, with respect to the Final rejection of claim(s) 1-9 and 11-20 under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Examiner apologizes for the inconvenience, but upon further consideration, a new ground(s) of rejection under 35 U.S.C. 101 has been made to claim 1, 6 and 7.

### **Additional Prior Art**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed in the attached form PTO-892 teach of other prior art method of determining aberration of a projection system of a lithographic apparatus.

### ***Conclusion***

### **Fax/Telephone Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

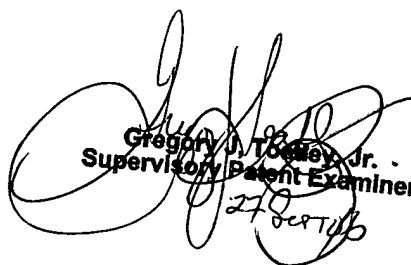
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2877

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi

September 23, 2006

  
Gregory J. Tobley, Jr.  
Supervisory Patent Examiner  
27 Dec 06